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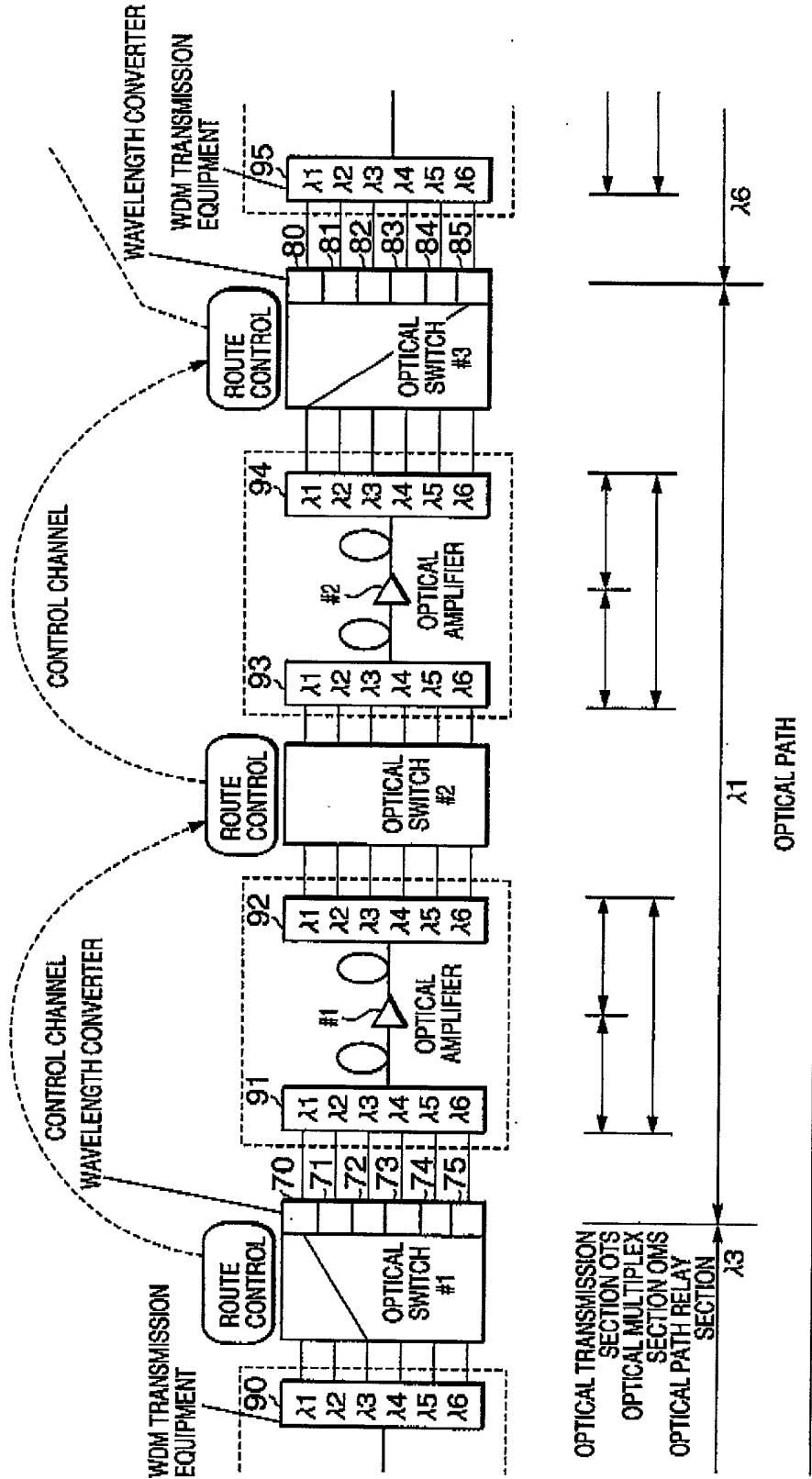


FIG. 1 PRIOR ART

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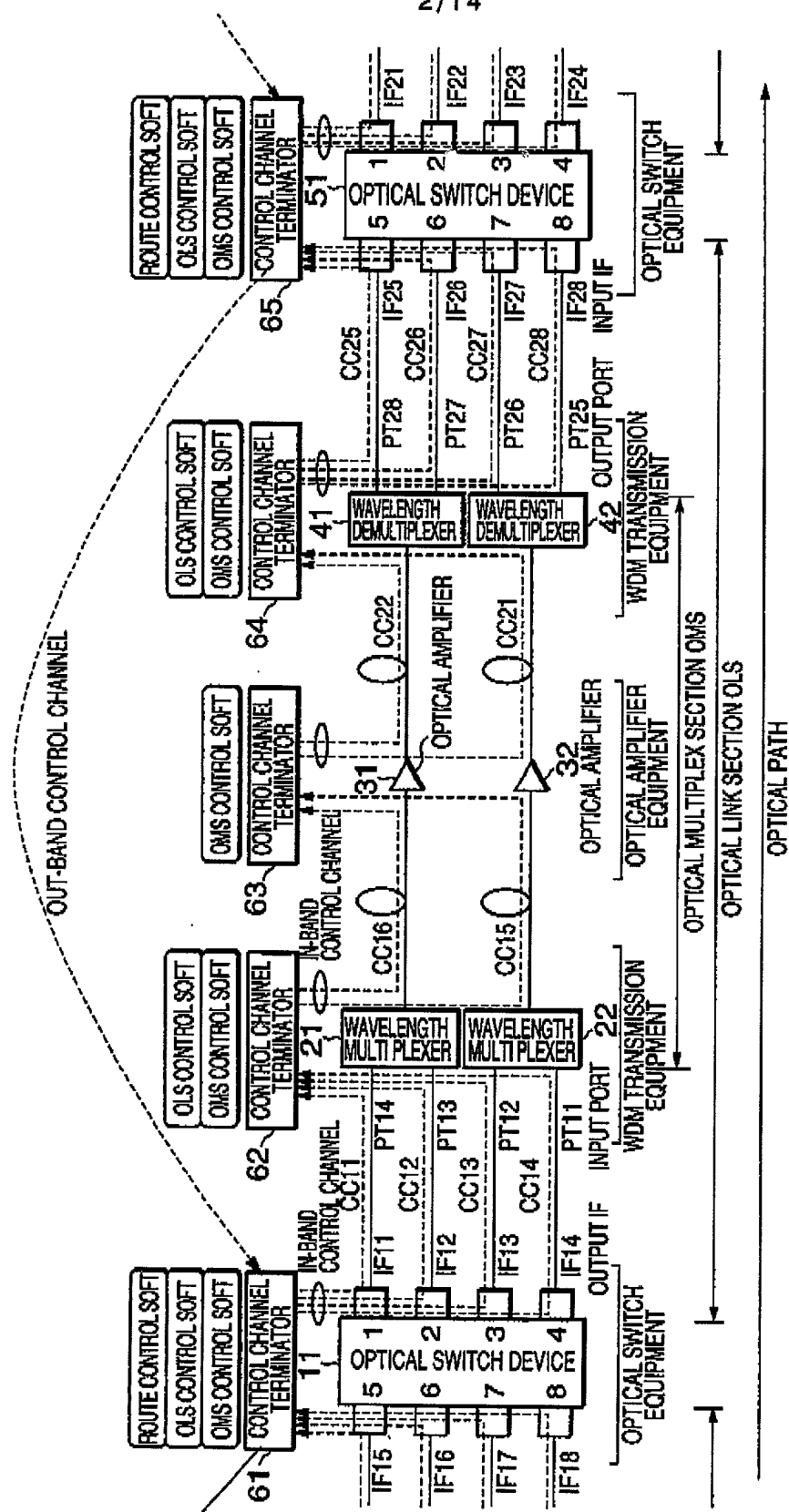


FIG. 2

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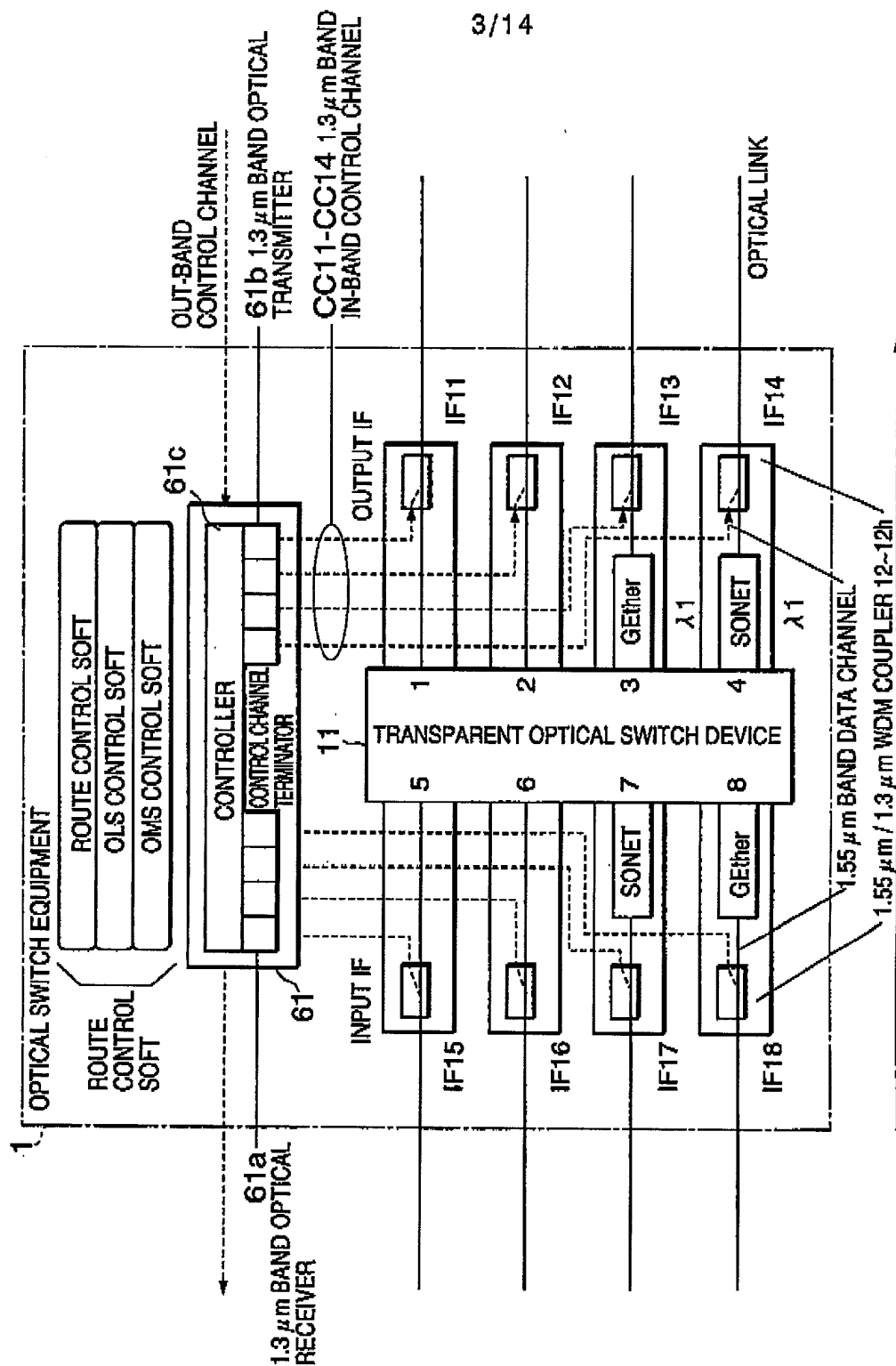


FIG. 3

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ATTRIBUTE ITEMS	IF11	IF12	IF13	IF14
OUTPUT OPTICAL SWITCH NO.	1	1	1	1
OUTPUT IF NO.	1	2	3	4
WAVELENGTH	ARBITRARY	ARBITRARY	$\lambda 1$	$\lambda 1$
SIGNAL RATE	ARBITRARY	ARBITRARY	1Gbit/s	2.5Gbit/s
SIGNAL FORMAT	ARBITRARY	ARBITRARY	Gether	SONET

FIG. 4A

ATTRIBUTE ITEMS	IF25	IF26	IF27	IF28
INPUT OPTICAL SWITCH NO.	5	5	5	5
INPUT IF NO.	5	5	7	8
WAVELENGTH	ARBITRARY	ARBITRARY	ARBITRARY	ARBITRARY
SIGNAL RATE	ARBITRARY	ARBITRARY	2.5Gbit/s	1Gbit/s
SIGNAL FORMAT	ARBITRARY	ARBITRARY	SONET	Gether

FIG. 4B

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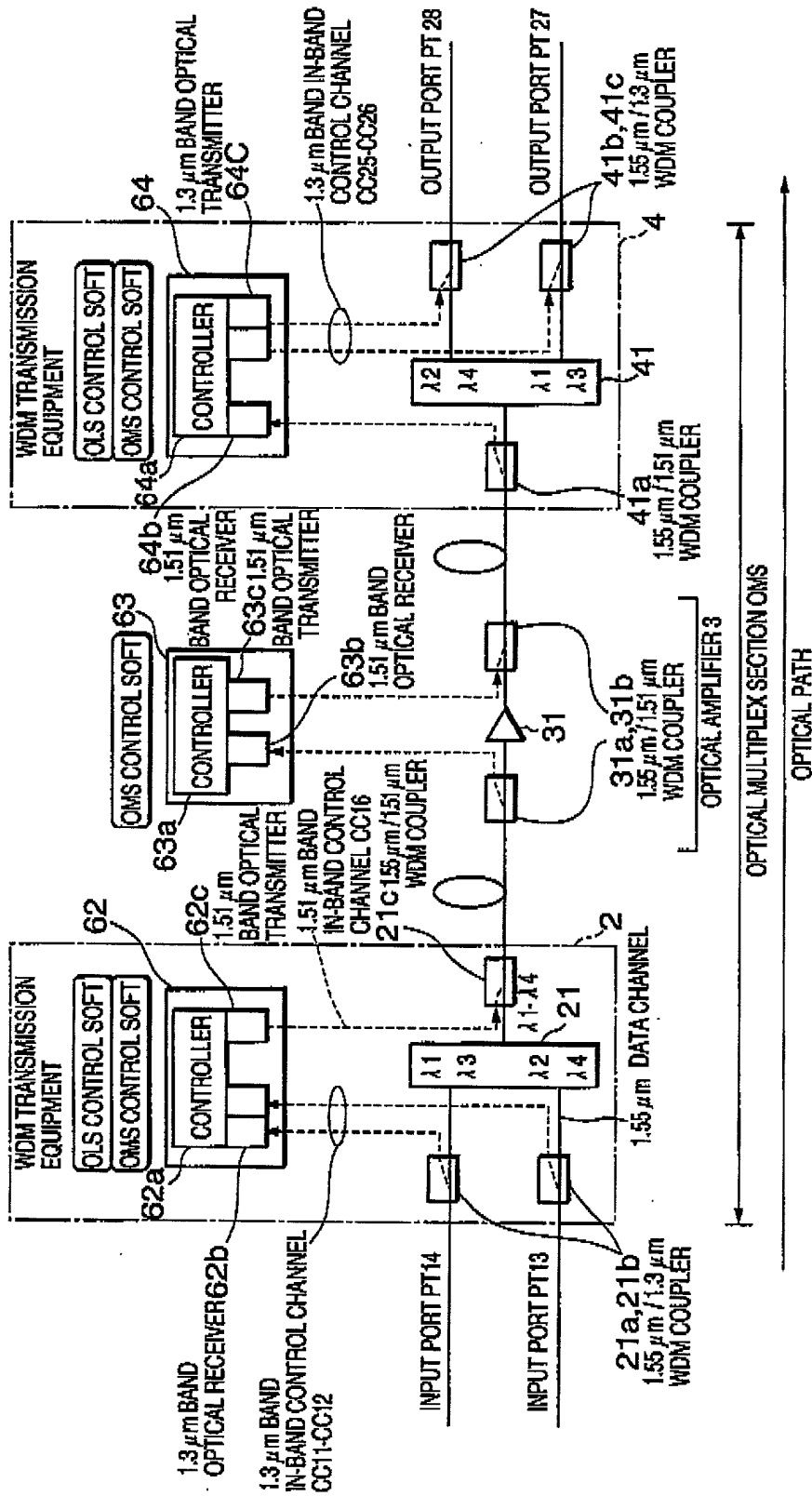


FIG. 5

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ATTRIBUTE ITEMS	PT11	PT12	PT13	PT14
WAVELENGTH	$\lambda 2$	$\lambda 1$	$\lambda 2, \lambda 4$	$\lambda 1, \lambda 3$
SIGNAL RATE	≤ 40 Gbit/s	≤ 40 Gbit/s	≤ 10 Gbit/s	≤ 10 Gbit/s
SIGNAL FORMAT	ARBITRARY	ARBITRARY	ARBITRARY	ARBITRARY
OMS GROUP NO.	2	2	1	1

FIG. 6A

ATTRIBUTE ITEMS	PT25	PT26	PT27	PT28
WAVELENGTH	$\lambda 1$	$\lambda 2$	$\lambda 1, \lambda 3$	$\lambda 2, \lambda 4$
SIGNAL RATE	≤ 40 Gbit/s	≤ 40 Gbit/s	≤ 10 Gbit/s	≤ 10 Gbit/s
SIGNAL FORMAT	ARBITRARY	ARBITRARY	ARBITRARY	ARBITRARY
OMS GROUP NO.	2	2	1	1

FIG. 6B

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FIG. 7A

CC11
IF11→PT14
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	1
WAVELENGTH	ARBITRARY
SIGNAL RATE	ARBITRARY
SIGNAL FORMAT	ARBITRARY

FIG. 7B

CC12
IF12→PT13
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	2
WAVELENGTH	ARBITRARY
SIGNAL RATE	ARBITRARY
SIGNAL FORMAT	ARBITRARY

FIG. 7C

CC13
IF13→PT12
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	3
WAVELENGTH	$\lambda 1$
SIGNAL RATE	1 Gbit/s
SIGNAL FORMAT	GEther

FIG. 7D

CC14
IF14→PT11
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	4
WAVELENGTH	$\lambda 1$
SIGNAL RATE	2.5 Gbit/s
SIGNAL FORMAT	SONET

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CC16,22
PT14, 13→PT27,28
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1	1
OUTPUT IF NO.	1	2
WAVELENGTH	$\lambda 1, \lambda 3$	$\lambda 2, \lambda 4$
SIGNAL RATE	≤ 10 Gbit/s	≤ 10 Gbit/s
SIGNAL FORMAT	ARBITRARY	ARBITRARY
OMS GROUP NO.	1	1

FIG. 8A

CC15,21
PT12, 11→PT25,26
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1	1
OUTPUT IF NO.	3	4
WAVELENGTH	$\lambda 1$	ERROR
SIGNAL RATE	1 Gbit/s	2.5Gbit/s
SIGNAL FORMAT	GEther	SONET
OMS GROUP NO.	2	2

FIG. 8B

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CC26
PT27→IF26
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	1
WAVELENGTH	$\lambda 1, \lambda 3$
SIGNAL RATE	$\leq 10 \text{ Gbit/s}$
SIGNAL FORMAT	ARBITRARY
OMS GROUP NO.	1

FIG. 9A

CC25
PT28→IF25
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	2
WAVELENGTH	$\lambda 2, \lambda 4$
SIGNAL RATE	$\leq 10 \text{ Gbit/s}$
SIGNAL FORMAT	ARBITRARY
OMS GROUP NO.	1

FIG. 9B

CC28
PT25→IF28
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	3
WAVELENGTH	$\lambda 1$
SIGNAL RATE	$\leq 1 \text{ Gbit/s}$
SIGNAL FORMAT	GEther
OMS GROUP NO.	2

FIG. 9C

CC27
PT26→IF27
ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1
OUTPUT IF NO.	4
WAVELENGTH	ERROR
SIGNAL RATE	2.5Gbit/s
SIGNAL FORMAT	SONET

FIG. 9D

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ATTRIBUTE ITEMS

OUTPUT OPTICAL SWITCH NO.	1	1	1	1
OUTPUT IF NO.	1	2	3	4
WAVELENGTH	$\lambda 1, \lambda 3$	$\lambda 2, \lambda 4$	$\lambda 1$	ERROR
SIGNAL RATE	≤ 10 Gbit/s	≤ 10 Gbit/s	10 Gbit/s	2.5 Gbit/s
SIGNAL FORMAT	ARBITRARY	ARBITRARY	GEIHER	SONET
OMS GROUP NO.	1	1	2	2
INPUT OPTICAL SWITCH NO.	5	5	5	5
INPUT IF NO.	6	5	8	7

FIG. 10

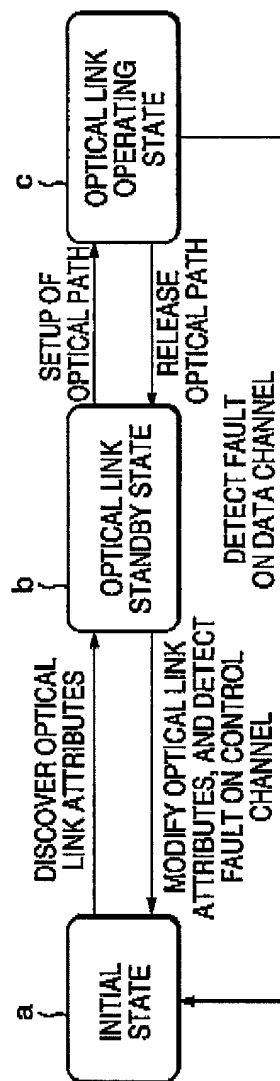


FIG. 11

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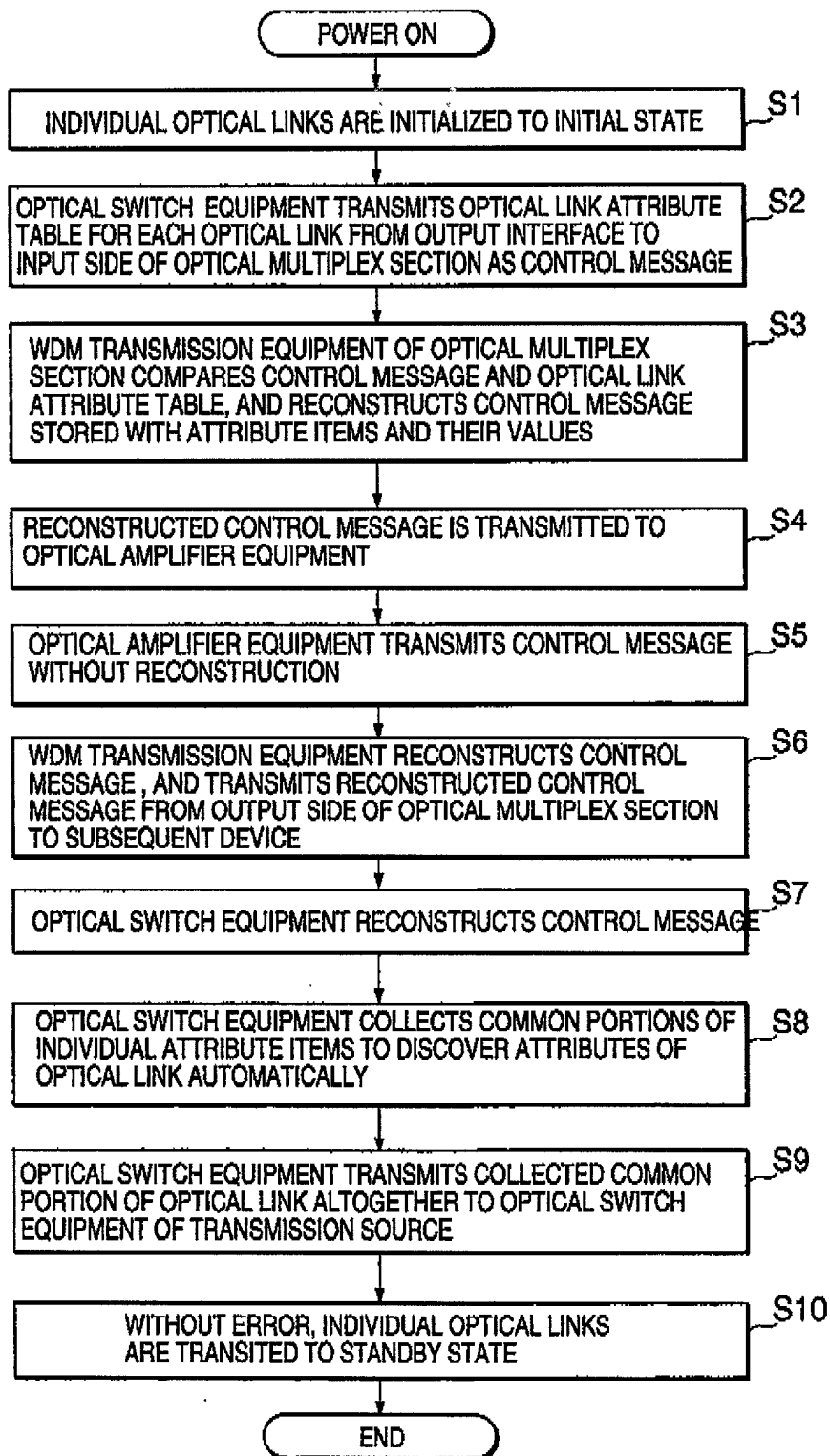


FIG. 12

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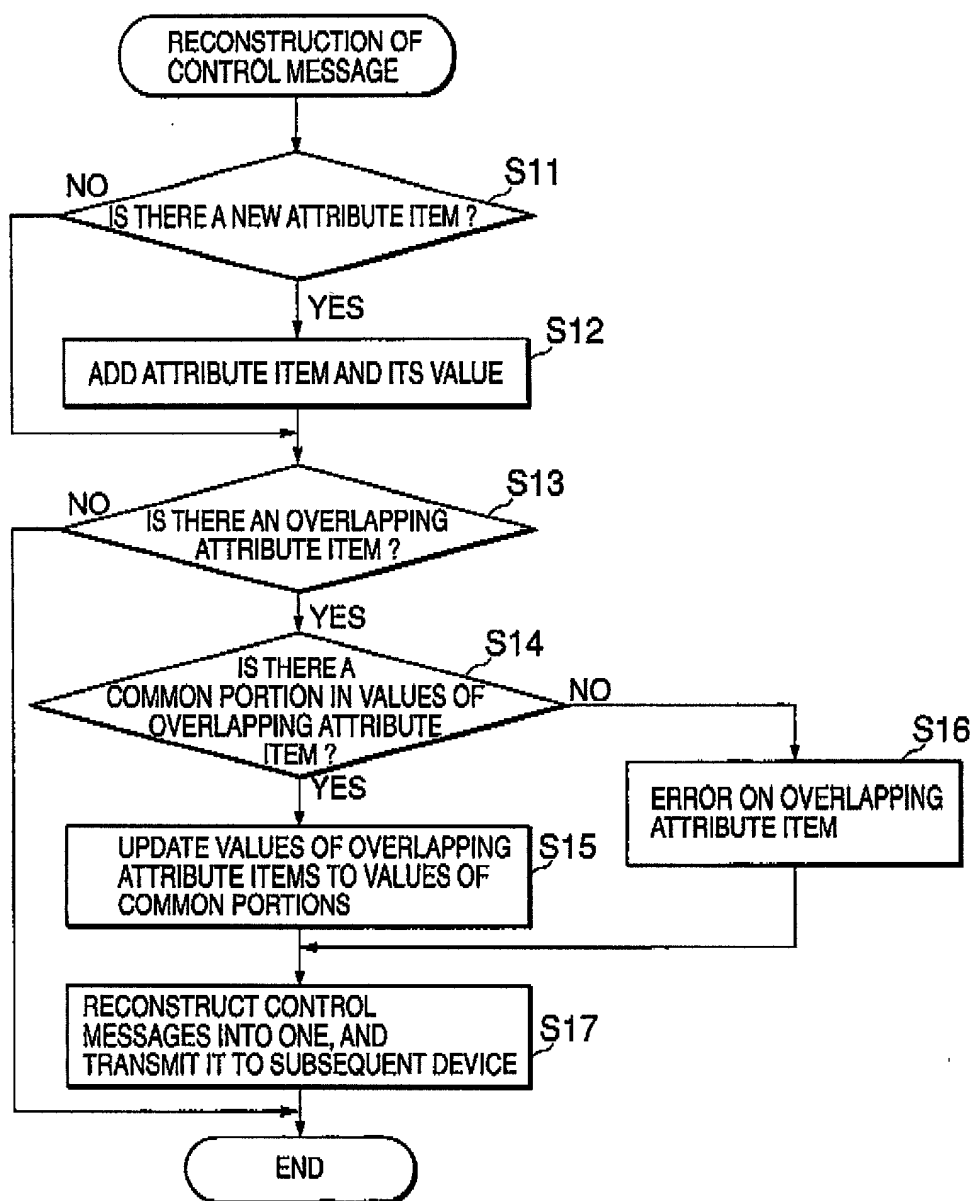


FIG. 13

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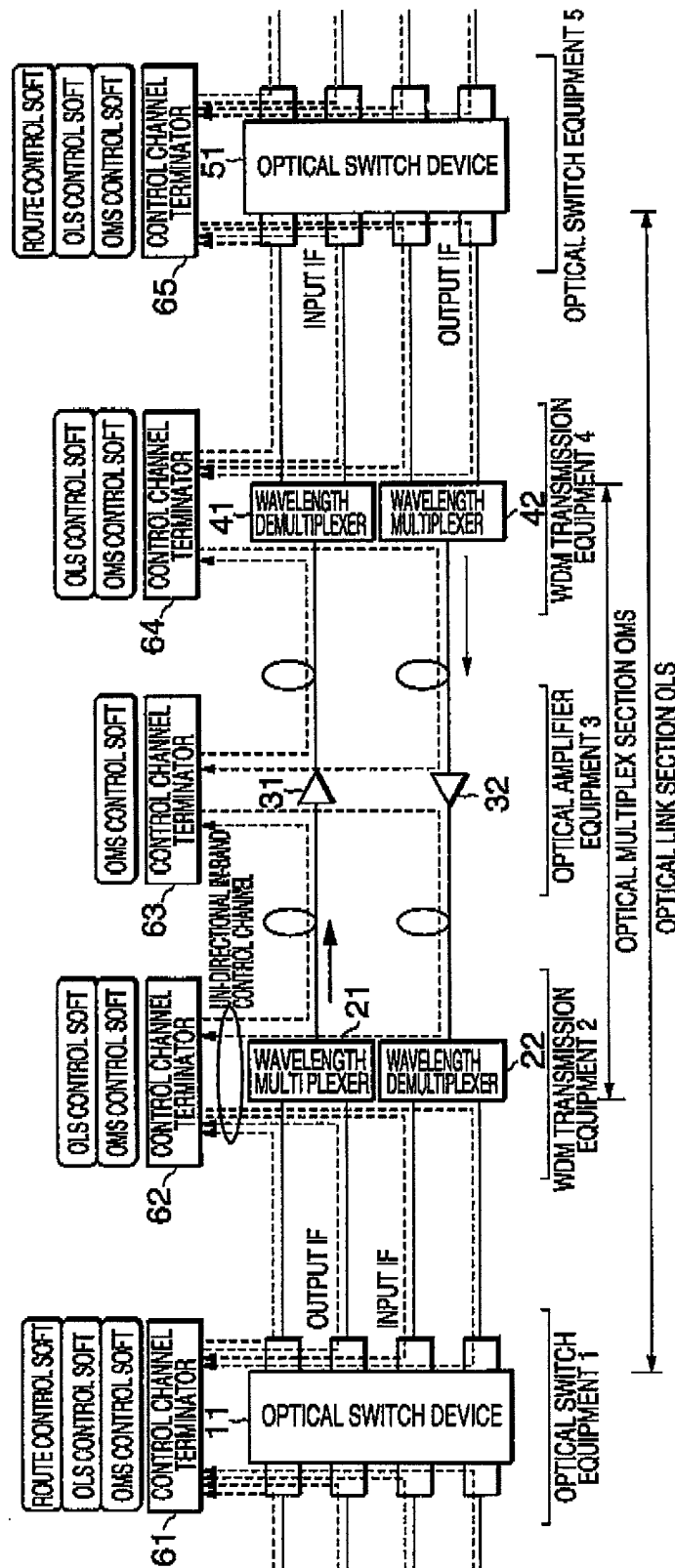


FIG. 14

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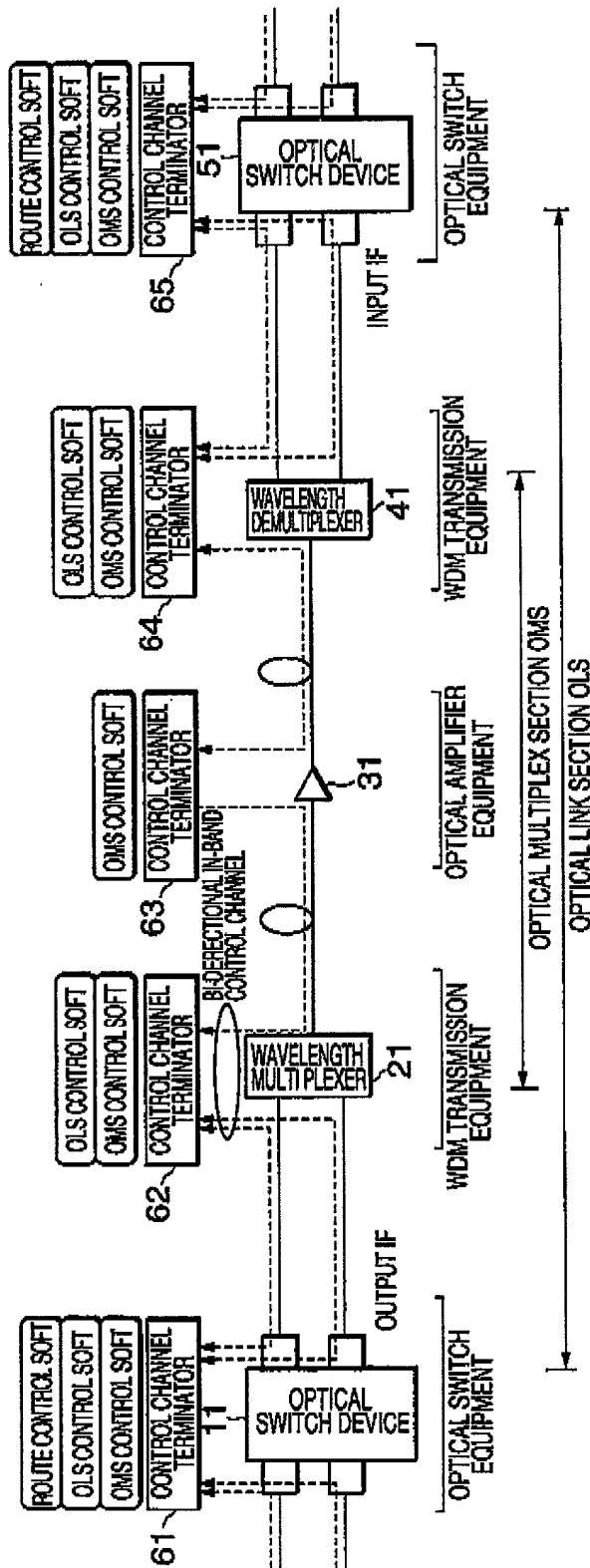


FIG. 15